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Vol. XVI.

# PROCEEDINGS

OF THE

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# NAVAL INSTITUTE.

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# **APPENDIX.**

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## ORIGIN, PROGRESS, AND OBJECT.

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In addition to its membership the Institute has a large number of subscribers and exchanges, so that now the published quarterly edition numbers 1350 copies.

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3d. The Professional and Bibliographic Notes furnish a compendium of valuable information, taken from home and foreign sources, to which most members have not access.

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 Wilson, T. D., Chief Constructor, U. S. N., Navy Dept., Wash., D. C.  
 Winder, William, Lieutenant, U. S. N.  
 Winn, J. K., Commander, U. S. N.  
 Winslow, F., Lieutenant, U. S. N., Raleigh, N. C.  
 Winslow, Herbert, Lieutenant, U. S. N.  
 Winterhalter, A. G., Lieut., U. S. N.  
 Wise, F. M., Lieutenant, U. S. N.  
 Wise, Wm. C., Commander, U. S. N.  
 Wood, E. P., Lieut.-Comr., U. S. N.  
 Wood, W. M., Lieutenant, U. S. N.  
 Woodbridge, W. E.  
 Woodward, J. J., Asst. Naval Constructor, U. S. N.  
 Woodworth, S. E., Lieutenant, U. S. N.  
 Wooster, L. W., P.-Asst. Engineer, U. S. N., Gibbsborough, N. J.  
 Worden, J. L., Rear Adm'l, U. S. N.  
 Worthington, W. F., P.-Asst. Engineer, U. S. N.  
 Wright, Benjamin, Ensign, U. S. N.  
 Yates, A. R., Captain, U. S. N.  
 Young, Lucien, Lieutenant, U. S. N.  
 Ziegemeier, H. J., Naval Cadet, U. S. N.

## ASSOCIATE MEMBERS.

Abbot, F. V., Captain, Engineers, U. S. A., 3 Southern Wharf, Charleston, S. C.  
Abbot, Henry L., Brigadier-General, Engineers, U. S. A., No. 39 Whitehall street, New York, N. Y.  
Angstrom, A., Civil Engineer, Cleveland Shipbuilding Co., Cleveland, Ohio.  
Archbold, Geo., M. D., Chemical Laboratories, Navy Yard, Washington, D. C.  
Aspinwall, Wm. H., 25 East 10th street, New York, N. Y.  
Azoy, Anastasio C. N., care of J. E. Ward, 113 Wall street, New York, N. Y.  
Baba, R., Lieutenant, I. J. Navy, Japanese Legation, Washington, D. C.  
Babcock, W. I., Manager, Chicago Shipbuilding Co., Chicago, Ill.  
Balbach, E., Jr., 233 River street, Newark, N. J.  
Balch, G. T., Colonel, Auditor, Board of Education, 143 Grand street, New York, N. Y.  
Barr, F., Captain, U. S. R. M.  
Barstow, G. F., Major, U. S. A.  
Benet, Laurence V., Military Engineer, Hotchkiss Ordnance Co., 21 Rue Royale, Paris, France.  
Bennett, T. G., President, Winchester Repeating Arms Co., New Haven, Conn.  
Billings, Geo. E., care of Hall Brothers Shipbuilding Co., 28 California street, San Francisco, Cal.  
Bogert, J. L., Flushing Iron Works, Flushing, Queens Co., N. Y.  
Bole, J. K., Otis Iron and Steel Co., Cleveland, Ohio.  
Bostrum, A. O., Navy Department, Washington, D. C.  
Brooke, J. M., Professor, Virginia Military Institute, Lexington, Va.  
Brough, John, M. E., P. O. Box 214, Vallejo, California.  
Burr, Edward, Lieutenant, Engineers, U. S. A., Cascade Locks, Oregon.  
Burr, J. H. Ten-Eyke, Cazenovia, Madison, N. Y.  
Campbell, J. B., Captain, 4th Artillery, U. S. A.  
Canfield, A. Cass, Commodore, C. S. Yacht Club, 60 West 54th street, New York, N. Y.  
Carbaugh, H. C., Captain, Asst. Judge Advocate, U. S. A.  
Chase, Constantine, Lieutenant, 3d Artillery, U. S. A.  
Collins-Stanforth, F. S., Union League Club, New York, N. Y.  
Colwell, A. W., Colwell Iron Works, foot of W. 27th street, New York, N. Y.  
Comly, Clifton, Major, Ordnance, U. S. A.  
Copeland, C. W., C. E. and M. E., 24 Park Place, New York, N. Y.  
Cowles, Alfred H., McRea Block, Lockport, N. Y.  
Cowles, Eugene H., 47 Windsor Avenue, Cleveland, Ohio.  
Craft, Elijah R., 2-4 Stone street, New York, N. Y.  
Dagron, J. G., Engineer of Bridges, Baltimore and Ohio R. R., Baltimore, Md.  
Davenport, R. W., Supt. Midvale Steel Co., Philadelphia, Pa.  
Davin, A., Lieutenant de Vaisseau, de la Marine Française, 92 Boulevard Raspail, Paris, France.  
Davis, D. P., N. Y. Safety Steam Power Co., 30 Courtlandt street, New York, N. Y.

**D'Oremieulx, Leon F., Secretary, S. C. Yacht Club, 7 E. 32d street, New York, N. Y.**

**Drayton, Percival L., Union Club, New York, N. Y.**

**Durfee, Wm. E., M. E., Birdsboro, Berks Co., Pa.**

**Dutton, S. E., M. E., 212-214 California street, San Francisco, Cal.**

**Edison, Thomas A., Orange, N. J.**

**Edson, Jarvis B., M. E., 87 Liberty street, New York, N. Y.**

**Emery, C. E., Civil Engineer, 22 Courtlandt street, New York, N. Y.**

**Eunson, R. G., Room 53, 171 Broadway, New York, N. Y.**

**Falsen, C. M., Lieutenant, Norwegian Navy, Horten, Norway.**

**Forbs-Leith, Alex. J., 40 Park Avenue, New York, N. Y.**

**France, J. R., Arlington Manufact'g Co., 86 Leonard street, New York, N. Y.**

**Gaskin, Edward, 173 W. Terry street, Buffalo, New York.**

**Gatling, R. M. D., Gatling Gun Co., Hartford, Conn.**

**Gilpin, F. M., 251 South 4th street, Philadelphia, Pa.**

**Graves, Miles W., Treasurer, Pratt & Whitney Co., Hartford, Conn.**

**Greenough, G. G., Captain, 4th Artillery, U. S. A.**

**Hale, Irvin, Lieutenant, Engineers, U. S. A.**

**Hall, Henry P., The Cloister, New Haven, Conn.**

**Halsey, James T., care of Cooke L. & M. Co., Paterson, N. J.**

**Hand, S. Ashton, Hand Manufacturing Co., Toughkenamon, Pa.**

**Handbury, T. C., Major, Engineers, U. S. A., P. O. Drawer 50, Portland, Oregon.**

**Hardon, Henry Winthrop, Attorney-at-Law, 52 Wall street, New York, N. Y.**

**Harmon, O. S., 318 Monroe street, Brooklyn, N. Y.**

**Hartshorne, Joseph, Supt. Pottstown Iron Works, Pottstown, Pa.**

**Haug, John, M. E., 206 Walnut Place, Philadelphia, Pa.**

**Hayes, A. A.**

**Hedden, E. F., First Asst. Engineer, U. S. R. M.**

**Herr, Rev. Benj. L., 172 Court street, Binghamton, N. Y.**

**Hewins, E. H., Colonel, Supt. N. E. Weston Electric Light Co., 18 P. O. Square, Boston, Mass.**

**Hillman, Gustav, Naval Architect, 470 Greene Avenue, Brooklyn, N. Y.**

**Hoffman, J. W., 333 Walnut street, Philadelphia, Pa.**

**Holzapfel, M., Quayside, Newcastle-on-Tyne, England.**

**Howland, M. Morris, University Club, Madison Square, New York, N. Y.**

**Hughes, R. P., Colonel, Inspector General, U. S. A., Governor's Island, N. Y.**

**Humphrey, E. W. C., 412 Center street, Louisville, Ky.**

**Hunt, W. P., President, South Boston Iron Works, Boston, Mass.**

**Hyde, Marcus D., 630 Commercial street, San Francisco, Cal.**

**Ingalls, J. M., Captain, 1st Artillery, U. S. A.**

**Jamar, M. F., 1st Lieutenant, 13th Infantry, U. S. A.**

**James, Nathaniel T., 416 California street, San Francisco, Cal.**

**Johnson, Isaac G., Steel Manufacturer, Spuyten Duyvil, New York.**

**Kennon, L. W. V., Lieutenant, 6th Infantry, U. S. A., Adjutant General's Office, War Department, Washington, D. C.**

**Kent, William, Passaic, N. J.**

Kittelle, Geo. W., Buford Hotel, Charlotte, N. C.  
Knight, Albert, Civil Engineer, P. O. Box 211, Butte City, Montana.  
Krupp, Fried., Cast Steel Works, Essen, Germany.  
Lang, W. M., Admiral, I. C. N., care Griffin & Co., The Hard, Portsmouth, Eng.  
Laureau, L. G., M. E., 60 Washington Square, South, New York, N. Y.  
Leavitt, E. D., Jr., 2 Central Square, Cambridgeport, Mass.  
Leu, Fred., 68 West street, Greenpoint, L. I.  
Livermore, W. R., Major, Engineers, U. S. A.  
Loring, B. W., Oswego, Tioga Co., N. Y.  
Lottin, Captain, French Army, French Legation, Washington, D. C.  
Low, Philip B., 28 South street, New York, N. Y.  
Lowe, A. Y., Lieutenant, U. S. R. M.  
Lyman, Thomas C., 8 East 65th street, New York, N. Y.  
Lyon, Henry, M. D., 34 Monument Square, Charlestown, Mass.  
MacMurray, J. W., Major, 1st Artillery, U. S. A.  
Macomb, M. M., First Lieutenant, 4th Artillery, U. S. A.  
Matlack, J. R., Jr., C. E., 403 Market street, Philadelphia, Pa.  
Marx, J. L., Lieutenant, R. N., Arle Bury, Arlesford-Hants, England.  
McClellan, Wm. B., Sec'y, Dorchester Yacht Club, 52 Monadnock St., Dorchester, Mass.  
McLaughlin, J., 2041 5th Avenue, New York, N. Y.  
McMahan, John Mabry, care Brown, Shipley & Co., London, England.  
Mendenhall, T. C., Professor, Supt. U. S. C. & G. Survey, Washington, D. C.  
Metcalf, H., Captain, Ordnance, U. S. A.  
Miller, H. W., Morristown, N. J.  
Miller, P. P., 293 Court street, Buffalo, N. Y.  
Millis, John, Lieut., Engineers, U. S. A., 1 Prytania street, New Orleans, La.  
Morgan, C. Leslie, 70 South street, New York, N. Y.  
Murphy, Peter R., 97 Church street, Albany, N. Y.  
Nakamura, S., Lieutenant, I. J. Navy, Japanese Legation, Washington, D. C.  
Nordhoff, C., Ensenada, L. C., by San Diego, California.  
Norton, Jas. A., M. D., 338 Sandusky street, Tiffin, Ohio.  
Oliphant, A. C., Trenton, N. J.  
Oliver, Wm. Letts, 328 Montgomery street, San Francisco, Cal.  
Otis, Chas. A., Room 13, No. 80 Broadway, New York, N. Y.  
Potter, John A., Supt. Homestead Steel Works, Munhall, Pa.  
Pratt, N. W., The Babcock & Wilcox Co., 30 Courtlandt st., New York, N. Y.  
Quinan, W. R., Manager, California Powder Co., San Francisco, Cal.  
Randolph, L. S., M. E., 1214 Bolton street, Baltimore, Md.  
Raymond, C. W., Colonel, Engineers, U. S. A., 1428 Arch st., Philadelphia, Pa.  
Richards, J. W., E. M., Ph. D., Lehigh University, S. Bethlehem, Pa.  
Ricketts, Pierre de P., E. M., Ph. D., 49th street and 4th Ave., New York, N. Y.  
Roepper, C. W., The Solid Steel Co., Alliance, Ohio.  
Ropes, J. C., 99 Mount Vernon street, Boston, Mass.  
Ruckman, J. W., Lieutenant, 5th Artillery, U. S. A.  
Russell, A. H., Captain, Ordnance, U. S. A.

Saito, M., Lieut., I. J. N., 16 Jamachi Gochome, Shiba, Tokio, Japan.  
Satterlee, C. B., Lieutenant, 3d Artillery, U. S. A.  
Schneider, Henri, Au Creusot, Saône-et-Loire, France.  
Schuyler, Roosevelt M., University Building, Washington Sq., New York, N. Y.  
Scott, Irving M., Union Iron Works, San Francisco, Cal.  
Scudder, E. M., Attorney and Counsellor, 54 Wall street, New York, N. Y.  
Sears, W. H., Civil Engineer, 150 Ellison street, Paterson, N. J.  
See, Horace, M. and C. Engineer, 1 Broadway, New York, N. Y.  
Shibayama, Y., Captain, I. J. N., care of Japanese Legation, Washington, D. C.  
Simpson, J. M., Captain, Chilian Navy.  
Sloan, T. O'Connor, M. E., Ph. D., 361 Broadway, New York, N. Y.  
Sloat, Geo. V., Chief Engineer, Old Dominion Steamship Co., New York, N. Y.  
Smedburg, W. R., Lieut.-Colonel, 316 California street, San Francisco, Cal.  
Snow, J. H., General Supt. National Transit Co., 26 Broadway, New York, N. Y.  
Sperry, Chas., M. E., Port Washington, Long Island, N. Y.  
Stephens, Wm. P., Yachting Editor, "Forest and Stream," 39 Park Row, New York, N. Y.  
Stevenson, Chas. A., Roosevelt & Howland, 55 Beaver street, New York, N. Y.  
Stickney, J. S., Office of the New York Herald, New York, N. Y.  
Stratton, E. Platt, C. E., 4 Hanover street, New York, N. Y.  
Stueler, Rudolph, 159 Front street, New York, N. Y.  
Tams, J. Fred, 48 Exchange Place, New York, N. Y.  
Taylor, Harry, Lieutenant, Engineers, U. S. A.  
Thompson, R. M., Box 1325 and 37 Wall street, New York, N. Y.  
Turtle, Thomas, Captain, Engineers, U. S. A.  
Uberroth, Preston H., Lieutenant, U. S. R. M.  
Vanderbilt, A., 113 Wall street, New York, N. Y.  
Waldo, Leonard, M. D., Electrical Engineer, Scoville Mf'g Co., Waterbury, Conn.  
Walke, Willoughby, Lieutenant, 2d Artillery, U. S. A.  
Washington, H. S., A. B., S. F., care of Brown, Shipley & Co., London, E. C., England.  
Webber, W. O., Civil Engineer, 68 Sears Building, Boston, Mass.  
Wellman, S. T., 1080 Wilson Avenue, Cleveland, Ohio.  
West, Thomas D., Thos. D. West Feundry Co., Cleveland, Ohio.  
Wheeler, F. M., Mech. Engr., 93-95 Liberty street, New York, N. Y.  
Whistler, G. N., 1st Lieutenant, 5th Artillery, U. S. A.  
White, J. F., S. B., Buffalo Chemical Works, Buffalo, N. Y.  
Williams, Albert, Jr., U. S. G. and Coast Survey Office, Washington, D. C.  
Wilson, A. E., Captain, Chilian Navy, care of Thomas Purves, Valparaiso, Chili.  
Wisser, J. P., Lieutenant, 1st Artillery, U. S. A.  
Woodall, James, Shipbuilder, foot of Allen St. and Locust Point, Balto., Md.  
Woodbury, John McGaw, M. D., 120 Fifth Avenue, New York, N. Y.  
Wotherspoon, W. W., Lieutenant, 12th Infantry, U. S. A.  
Yamano-uchi, M., Lieutenant, I. J. Navy, 28 West Parade, Newcastle-upon-Tyne, England.  
Zalinski, E. L., Captain, 5th Artillery, U. S. A.

## MEMBERS DECEASED SINCE MARCH, 1887.

Archbold, Samuel, Oct. 21, 1890.\*  
 Baker, S. H., Commander, U. S. N., Oct. 30, 1888.  
 Beaumont, H. N., Surgeon, U. S. N., April 30, 1887.  
 Bessels, E., M. D., 1888.  
 Black, Chas. H., Lieut.-Com., Jan. 20, 1891.  
 Boyd, Robert, Captain, U. S. N., July 30, 1890.  
 Bridge, E. W., Lieutenant, U. S. N., Aug. 29, 1889.  
 Case, A. L., Oct. 17, 1890.\*  
 Chandler, R., Rear-Admiral, U. S. N., Feb. 11, 1889.  
 Coffin, J. H. C., Professor, U. S. N., Jan. 8, 1890.  
 Danenhower, J. W., April 20, 1887.  
 Darragh, W. F., Asst. Engineer, U. S. N., Feb. 25, 1889.  
 Davids, H. S., Chief Engineer, U. S. N., Feb. 8, 1888.  
 Delmater, C. H., Feb. 7, 1889.\*  
 Denney, Wm., 1887.\*  
 Ericsson, John, New York, March 8, 1889.†  
 Faron, E., 1888.  
 Forbes, Hon. R. B., Dec., 1889.\*  
 Gatewood, Richard, Naval Constructor, U. S. N., Dec. 15, 1890.  
 Gibbons, Charles, Jr., 1888.  
 Huntington, C. L., Commander, U. S. N., Oct. 14, 1890.  
 Kelly, J. P., Chief Engineer, Jan. 27, 1890.  
 Kenyon, A. J., Chief Engineer, July 27, 1888.  
 Lee, C. S., March, 1888.  
 Le Roy, W. E., Rear-Admiral, Dec. 10, 1888.  
 Livingston, G. B., Lieut.-Comr., Sept. 19, 1890.  
 McCarty, R. H., P.-Asst. Surgeon, U. S. N., April 12, 1890.  
 McGowan, W. C., P.-Asst. Paymaster, U. S. N., Dec. 25, 1887.  
 McRitchie, D. G., Lieutenant, U. S. N., Aug. 12, 1888.  
 Meatyard, E. B., 1889.  
 Meyers, F. Bailey, New York, 1888.  
 Michaelis, O. E., Major, U. S. A., May 1, 1890.  
 Miles, Chas. R., Lieutenant, U. S. N., Jan. 14, 1889.  
 Mullany, J. R. M., Rear-Admiral, U. S. N., Sept. 17, 1887.  
 Nicoll, W. L., Chief Engineer, U. S. N., July 2, 1887.  
 Pearson, F., New York, Dec. 1890.  
 Peck, Chas. F., Aug. 12, 1890.  
 Rowan, S. C., Vice-Admiral, U. S. N., March 31, 1890.  
 Schaefer, H. W., Lieutenant, U. S. N., May 11, 1889.  
 Sharrer, W. O., Lieutenant, U. S. N., Sept. 8, 1889.  
 Simpson, E., Rear-Admiral, U. S. N., Dec. 1, 1888.  
 Smith, W. D., Chief Engineer, U. S. N., Sept. 10, 1887.  
 Snyder, H. L., Chief Engineer, June 30, 1887.

Stewart, W. A. W., March, 1888.  
Talcott, C. G., Asst. Engineer, U. S. N., July 25, 1889.  
Totten, G. M., Lieut.-Comr., U. S. N., May 27, 1888.  
Wells, C. H., Rear-Admiral, U. S. N., Jan. 28, 1888.  
Willamov, G., 1888.  
Wright, M. F., Lieutenant, U. S. N., March 4, 1890.

# ANNUAL REPORT OF THE SECRETARY AND TREASURER OF THE UNITED STATES NAVAL INSTITUTE.

TO THE OFFICERS AND MEMBERS OF THE INSTITUTE.

*Gentlemen:*—I have the honor to submit the following report of the affairs of the Institute for the year ending December 31, 1890:

## ITEMIZED CASH STATEMENT.

### RECEIPTS DURING YEAR 1890.

ITEMS.	1st Quarter.	2d Quarter.	3d Quarter.	4th Quarter.	Totals.
Advertisements.....	\$160 00	\$180 00	\$20 00	.....	\$360 00
Dues.....	1,181 46	312 98	254 00	\$234 04	1,982 48
Sales.....	131 29	116 30	13 42	150 14	411 15
Subscriptions.....	251 25	319 40	134 10	117 60	822 35
Life-membership fees.....	120 00	30 00	30 00	30 00	210 00
Binding, extra.....	20 80	4 00	4 60	2 00	31 40
Interest on bonds.....	37 41	26 33	45 50	.....	109 24
<b>Totals.....</b>	<b>\$1,902 21</b>	<b>\$989 01</b>	<b>\$501 62</b>	<b>\$533 78</b>	<b>\$3,926 62</b>

### EXPENDITURES DURING YEAR 1890.

ITEMS.	1st Quarter.	2d Quarter.	3d Quarter.	4th Quarter.	Totals.
Printing publications.....	\$300 00	\$1,047 30	\$763 81	\$11 25	\$2122 36
Postage.....	28 17	31 95	34 14	29 81	124 07
Freight.....	6 87	8 98	3 95	5 47	25 27
Messenger.....	103 00	125 00	135 00	140 00	503 00
Office furniture.....	.....	68 40	.....	.....	68 40
Office expenses.....	2 20	5 20	05	1 59	9 04
Stationery.....	1 38	41 61	4 50	18 74	66 23
Drawing.....	4 00	.....	.....	.....	4 00
Purchase of bonds.....	127 25	.....	.....	122 18	249 43
Over credit.....	3 00	.....	.....	.....	3 00
Binding, extra.....	17 60	.....	.....	31 10	48 70
Secretary.....	.....	.....	.....	30 00	30 00
Telegram.....	.....	.....	.....	27	27
Subscription Army and Navy List.....	.....	.....	.....	2 00	2 00
Purchase of back numbers.....	.....	.....	.....	7 70	7 70
Notary's fees.....	.....	.....	.....	1 50	1 50
Expenses Branch office.....	.....	.....	.....	2 00	2 00
<b>Totals.....</b>	<b>\$593 47</b>	<b>\$1,328 44</b>	<b>\$941 45</b>	<b>\$403 61</b>	<b>\$3,266 97</b>

## SUMMARY.

Balances of cash unexpended for the year 1889.....	\$1058 27
Total receipts for 1890.....	3926 62
 Total available cash for 1890.....	\$4984 89
Total expenditures for 1890.....	3266 97
 Cash unexpended January 1, 1891.....	\$1717 92
Cash held to credit of Reserve Fund .....	159 44
 True balance of cash on hand January 1, 1891 .....	\$1558 48
Bills receivable for sales of No. 55.....	142 10
"    "    " dues, 1890 .....	360 00
"    "    " back dues.....	378 00
"    "    " binding.....	22 00
 Total assets January 1, 1891.....	\$2460 58
Bills for No. 55, outstanding.....	

\$1000 of the available cash is on deposit in the Seamen's Bank for Savings, New York, drawing interest.

	Year 1889.	Year 1890.	Increase.
Receipts.....	\$3447 38	\$3926 62	\$479 24
Expenditures.....	3104 39	3266 97	162 58
Balance.....	\$342 99	\$659 65	\$316 66

## RESERVE FUND.

List of bonds deposited for safe-keeping in the Farmer's National  
Bank of Annapolis, Md.:

United States 4 per cent registered bonds .....	.....	\$900 00
District of Columbia 3.65 per cent registered bonds.....	.....	2000 00
"    "    "    "    coupon    "    .....		150 00
		\$3050 00
Cash in bank uninvested.....	.....	159 44
Total Reserve Fund.....	.....	\$3209 44
Annual interest on bonds.....	.....	114 47
Number of new life members.....	.....	7

During the year four District of Columbia bonds, 3.65 per cent, face value \$200, were purchased for \$249.43. District of Columbia coupon bonds, 3.65 per cent, to the value of \$1000, were sent to the Treasurer of the United States in exchange for \$1000 in District of Columbia 3.65 per cent registered bonds. These latter are registered in the name of the United States Naval Institute.

## MEMBERSHIP.

During the year 1890 the Institute lost 16 members by resignation and 14 by death, two of the latter having been life members. 27 new members' names were added to the rolls, 3 becoming life members; 4 regular members became life members.

The membership of the Institute to date, January 1, 1891, is as follows:

Honorary members .....	6
Life " .....	101
Regular " .....	558
Associate " .....	165
<b>Total number of members.....</b>	<b>830</b>

## CIRCULATION.

Members.....	830
Subscriptions .....	256
Exchanges.....	71
Average sales per quarter.....	130
<b>Total circulation per quarter .....</b>	<b>1287</b>

## PUBLICATIONS ON HAND.

The Institute had on hand at the end of the year the following copies of back numbers of its Proceedings:

Whole Nos.	Plain Copies.	Bound Copies.	Whole Nos.	Plain Copies.	Bound Copies.
1.....	198	...	14.....	6	...
2.....	201	...	15.....	2	...
3.....	59	...	16.....	220	...
4.....	149	...	17.....	3	...
5.....	122	...	18.....	91	...
6.....	6	...	19.....	110	...
7.....	12	...	20.....	127	...
8.....	35	...	21.....	230	...
9.....	42	...	22.....	273	...
10.....	4	...	23.....	175	...
11.....	215	...	24.....	198	...
12.....	56	...	25.....	1141	...
13.....	6	...	26.....	203	27

	Plain. Copies.	Bound. Copies.		Plain. Copies.	Bound. Copies.
<b>Whole Nos. 27.....</b>	<b>290</b>	<b>27</b>	<b>Whole Nos. 42 .....</b>	<b>123</b>	<b>14</b>
28.....	5	...	43.....	283	3
29.....	222	27	44.....	270	10
30.....	252	4	45.....	207	17
31.....	23	53	46 .....	215	18
32.....	5	173	47.....	193	18
33.....	14	162	48.....	181	18
34.....	181	24	49.....	211	17
35.....	104	66	50.....	170	17
36.....	251	25	51 .....	223	18
37.....	167	20	52.....	191	18
38.....	247	2	53.....	533	35
39 .....	176	1	54.....	206	12
40.....	623	111	55.....	225	18
41.....	244	19			

2 Vol. X., Part 1, bound in half-morocco.

1 " " 2, " "

1 Vol. XIII., Part 2, bound in half-morocco.

1 No. 34, bound in half-morocco.

4 " " " calf.

6 " " full sheep.

The archive set complete, Vol. I. to Vol. XIII. inclusive, bound in full turkey.

Very respectfully,

H. G. DRESEL, Ensign, U. S. N.,  
*Secretary and Treasurer.*

ANNAPOLIS, MD., January 1, 1891.

## CONSTITUTION AND BY-LAWS.

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### ARTICLE I.—TITLE.

This organization shall be called the United States Naval Institute.

### ARTICLE II.—OBJECT.

Its object is the advancement of professional, literary, and scientific knowledge in the Navy.

### ARTICLE III.—HEADQUARTERS.

The Headquarters of the Institute shall be at the United States Naval Academy, Annapolis, Md.

### ARTICLE IV.—OFFICERS.

The officers shall be as follows :

A President.

A Vice-President.

A Board of Control.

A Secretary and Treasurer.

A President and Corresponding Secretary for each Branch,

### ARTICLE V.—ELECTION OF OFFICERS.

SEC. 1. There shall be a meeting of the Institute at Headquarters on the second Friday in October of each year, of which at least two weeks' notice shall be given, at which meeting all the foregoing officers, except those of Branches, shall be elected by ballot in open session, and a majority of votes given by presence or proxy shall elect ; regular or life members only being eligible for office.

SEC. 2. Absent members who have the constitutional right to vote may vote by proxy at such elections, and in the same manner on all questions involving changes in the Constitution and By-Laws, and upon questions involving the expulsion of members and the election of honorary members. On all other questions voting must be by actual presence. Life members shall have the full right of regular

members to vote on every question. Honorary and associate members shall not have the privilege of voting. All proxies must be signed by the member whose vote is to be represented.

SEC. 3. Members elected to the position of officers of the Institute will assume their respective duties at the date from which elected.

SEC. 4. Casual vacancies in the officers of the Institute may be temporarily filled by the Board of Control.

#### ARTICLE VI.—DUTIES OF OFFICERS.

SEC. 1. The President shall preside at business meetings of the Institute, or its Branches, at which he may be present.

SEC. 2. In the absence of the President at Headquarters, the Vice-President shall preside.

SEC. 3. The Board of Control shall consist of seven members in good standing, regular or life, and its duties shall be the management of all the financial and administrative business of the Institute, including the censorship, printing, and control of its publications. The Secretary and Treasurer, shall be, *ex officio*, a member of the Board, its medium of communication and the recorder of its transactions. The regular meetings of the Board of Control shall be held upon the first and third Saturday of each month. A special meeting shall be called by the Secretary and Treasurer upon the written application of two members of the Board. A quorum shall consist of three members. In the absence of both the President and Vice-President at business meetings of the Institute, a member of the Board of Control shall preside. It shall be the duty of this Board to appoint a committee of three of its own members to audit and certify the books and accounts of the Secretary and Treasurer at least once every quarter.

SEC. 4. The Secretary and Treasurer shall keep a register of the members in which shall be noted all changes; an authenticated copy of the Constitution and By-Laws in force; a journal of the Proceedings of the Institute; a separate journal of the transactions of the Board of Control; a receipt and expenditure book; an account-current with each member. Under the authority of the Board of Control, he shall be the disbursing and purchasing officer of the Institute and the custodian of the funds, securities, and assets, and it shall be his duty to furnish members with receipts for dues paid. He shall attend to all correspondence and keep a record thereof, give due notice of meetings of the Institute and Board of Control, have charge of the

stenographer and copyists employed to prepare records of the Proceedings, and he shall distribute all publications. The books of account of the Institute shall always be open to inspection by any member. Papers accepted by the Board of Control shall be read by the Secretary and Treasurer when the author cannot be present.

#### ARTICLE VII.—MEMBERSHIP.

SEC. 1. The Institute shall consist of regular, life, honorary, and associate members.

SEC. 2. Officers of the Navy, Marine Corps, and all civil officers attached to the Naval Service, shall be entitled to become regular or life members, without ballot, on payment of dues or fees to the Secretary and Treasurer, or to the Corresponding Secretary of a Branch. Members who resign from the Navy subsequent to joining the Institute will be regarded as belonging to the class described in this Section.

SEC. 3. The Prize Essayist of each year shall be a life member without payment of fee.

SEC. 4. Honorary members shall be selected from distinguished Naval and Military Officers, and from eminent men of learning in civil life. The Secretary of the Navy shall be, *ex officio*, an honorary member. Their number shall not exceed thirty (30). Nominations for honorary members must be favorably reported by the Board of Control, and a vote equal to one-half the number of regular and life members, given by proxy or presence, shall be cast, a majority electing.

SEC. 5. Associate members shall be elected from officers of the Army, Revenue Marine, foreign officers of the Naval and Military professions, and from persons in civil life who may be interested in the purposes of the Institute.

SEC. 6. Those entitled to become associate members may be elected life members, provided that the number not officially connected with the Navy and Marine Corps shall not at any time exceed one hundred (100).

SEC. 7. Associate members and life members, other than those entitled to regular membership, shall be elected as follows: Nominations shall be made in writing to the Secretary and Treasurer, with the name of the member making them, and such nominations shall be submitted to the Board of Control, and, if their report be favorable, the Secretary and Treasurer shall make known the result at the next

meeting of the Institute, and a vote shall then be taken, a majority of votes cast by members present electing.

SEC. 8. The annual dues for regular and associate members shall be three dollars, payable upon joining the Institute, and upon the first day of each succeeding January. The fee for life membership shall be thirty dollars, but if any regular or associate member has paid his dues for the year in which he wishes to be transferred to life membership, or has paid his dues for any future year or years, the amount so paid shall be deducted from the fee for life membership.

SEC. 9. No member of the Institute shall be dismissed except by recommendation of the Board of Control, and by a two-thirds vote of the members of the Institute voting at any regular or called meeting, of which at least one month's notice shall be given. Without the recommendation of the Board of Control, no member can be dismissed except by a three-fourths vote. In both the above cases there must be a total vote of at least a majority of all those members entitled to a vote, the voting to be either by presence or proxy. Members two years in arrears shall be dropped. Those dropped for non-payment of dues can regain their membership by paying two years' arrearage of dues, but the Board of Control may adjust any special case upon its merits.

#### ARTICLE VIII.—RESERVE FUND.

The amount now invested (\$3050.00) in United States and District of Columbia bonds shall be placed to the credit of a Reserve Fund. All moneys received from life-membership fees shall, as soon as practicable, be invested in United States bonds, or bonds guaranteed by the United States, and shall be added to said fund, which shall be held in perpetuity to guarantee the future interest of said life members. The interest of said fund may, however, be used for the current expenses of the Institute.

#### ARTICLE IX.—MEETINGS.

SEC. 1. The regular time of holding meetings of the Institute shall be the second Friday of each month, but if there should be no paper accepted by the Board of Control to be read, professional subject to be discussed, or executive business to be transacted, the monthly meeting may be omitted.

SEC. 2. Special meetings of the Institute shall be called by the Secretary and Treasurer when directed by the Board of Control.

SEC. 3. Notice of regular or special meetings shall state the title of papers to be read, with the name of the author, and mention the executive business that will be brought before the meeting.

SEC. 4. A stenographer may be employed when authorized by the Board of Control.

#### ARTICLE X.—PAPERS AND PROCEEDINGS.

SEC. 1. Quarterly, or as much oftener as the Board of Control may decide, the papers read before the Institute and its Branches, together with the discussions growing out of them, shall be published. Papers on intricate technical subjects of such a character as not to be appreciated on merely casual investigation, and articles too extended to be read at one meeting of the Institute, may be published as a part of the Proceedings when authorized by the Board of Control; and there may also be published, under the heads of Editorial and Professional Notes, such comment and information as may be deemed of value to the service.

SEC. 2. One copy of the Proceedings when published shall be furnished to each regular, life, honorary, and associate member, to each corresponding Society of the Institute, and to such libraries and periodicals as may be determined upon by the Board of Control.

SEC. 3. Copies of the Proceedings and complete sets may be sold at a charge fixed by the Board of Control, and the Board shall also fix the price of annual subscription for others than members.

SEC. 4. A receipt and expenditure account of the Institute's publications, showing the number on hand, shall be included in the report of the Secretary and Treasurer of each year.

SEC. 5. The Board of Control shall decide the size of the edition of each number of the Proceedings to be published, and also the number of reprints.

#### ARTICLE XI.—ANNUAL PRIZE ESSAY.

SEC. 1. A prize of one hundred dollars, with a gold medal, shall be offered each year, for the best essay on any subject pertaining to the Naval Profession.

SEC. 2. The award for the above-named prize shall be made by the Board of Control, voting by ballot and without knowledge of the names of the competitors; and the time and manner of submitting such essays shall be determined and announced by said Board.

SEC. 3. In the event of the Prize being awarded to the winner of a previous year, a gold clasp, suitably engraved, will be given in lieu of a gold medal.

#### ARTICLE XII.—BRANCHES.

SEC. 1. The Board of Control is empowered to appoint Corresponding Secretaries for all Naval Stations, both ashore and afloat, where there is no organized Branch; also for Branches where a vacancy exists owing to the resignation of the Corresponding Secretary before a meeting can be called to elect a successor.

SEC. 2. The officers of a Branch shall be a Vice-President and a Corresponding Secretary.

SEC. 3. The Vice-President shall perform the same duty for the Branch as prescribed for the President of the Institute.

SEC. 4. The Corresponding Secretary of a Branch shall keep a register of the members residing within the limits of the Station, and an account-current with each. He shall keep a journal of the proceedings of the Branch and a copy of the Constitution and By-Laws. He shall give due notice of all meetings of the Branch, and shall have control of the stenographer whenever it is deemed necessary to employ one. He shall forward to the Secretary and Treasurer of the Institute all papers read before his Branch, and keep him informed of all new members and their addresses, and of all business relating to the Institute. He shall have charge of the Branch library and of all books and papers, and shall receive and distribute publications. He shall keep a receipt and expenditure book, shall collect dues from members on the Station and give receipts therefor. He shall be authorized to expend such part of the funds in his possession for stationery, postage, printing, and for other incidental expenses as may be deemed necessary. He shall at the end of each month render to the Secretary and Treasurer a detailed statement of moneys received and expended, with vouchers for expenditures, and shall forward to the Secretary and Treasurer the funds remaining on hand, retaining only sufficient to defray the estimated current expenses of the Branch for the ensuing month.

SEC. 5. Monthly meetings of each Branch may be held upon such dates as the Branch shall decide, but if there is no paper to be read or business to be transacted at the appointed date, the Corresponding Secretary may omit the call for the regular meeting. Special meetings may be called when necessary.

**ARTICLE XIII.—COPYRIGHT.**

The Proceedings shall be copyrighted in behalf of the Institute by the Secretary and Treasurer.

**ARTICLE XIV.—AMENDMENTS.**

No addition or amendment to the Constitution shall be made without the assent of two-thirds of the members voting; the By-Laws, however, may be amended by a majority vote. Notice of proposed changes or additions shall be given by the Secretary and Treasurer at least one month before action is taken upon them. A total vote equal to at least half the number of regular and life members shall be required.

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**BY-LAWS.****ARTICLE I.**

The rules of the United States House of Representatives shall, in so far as applicable, govern the parliamentary proceedings of the Society.

**ARTICLE II.**

1. At both regular and stated meetings the routine of business shall be as follows:
  2. At executive meetings, the President, or, in his absence, the Vice-President, or, in the absence of both, a member of the Board of Control, shall call the meeting to order, and occupy the chair during the session; in the absence of these, the meeting shall appoint a Chairman.
  3. At meetings for the presentation of papers and discussion, the Society shall be called to order as above provided, and a Chairman shall be appointed by the presiding officer, reference being had to the subject about to be discussed, and an expert in the specialty to which it relates being selected.
  4. At regular meetings, after the presentation of the paper of the evening, or on the termination of the arguments made by members appointed to or voluntarily appearing to enter into formal discussion, the Chairman shall make such review of the paper as he may deem

proper. Informal discussion shall then be in order, each speaker being allowed not exceeding ten minutes in the aggregate, unless by special consent of the Society. The author of the paper shall, in conclusion, be allowed such time in making a résumé of the discussion as he may deem necessary. The discussion ended, the Chairman shall close the proceedings with such remarks as he may be pleased to offer.

5. At the close of the concluding remarks of the Chairman, the Society shall go into executive session, as hereinbefore provided, for the transaction of business as follows:

1. Stated business, if there shall be any to be considered.
2. Unfinished business taken up.
3. Reports of Officers and Committees.
4. Applications for membership reported and voted upon.
5. Correspondence read.
6. Miscellaneous business transacted.
7. New business introduced.
8. Adjournment.







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